



**Food and Agriculture
Organization of the
United Nations**



Investing in rural people



**World Food
Programme**

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HIGHLIGHTS OF THE PROJECT

“MAINSTREAMING **FOOD LOSS REDUCTION** INITIATIVES FOR SMALLHOLDERS IN **FOOD** **DEFICIT AREAS**”

JOINTLY IMPLEMENTED BY THE UNITED NATIONS ROME-BASED AGENCIES

Contribution from the Swiss Development and Cooperation Agency (SDC)

Phase 1 (December 2013 – May 2017): United States
Dollars (USD) 3 050 185

Phase 2 (July 2017 – September 2020): USD 1 889 216

Implementing agencies

Food and Agriculture Organization of the United Nations
(FAO), International Fund for Agricultural Development
(IFAD), World Food Programme (WFP)

Beneficiaries

Value chain actors including smallholder farmers, service
providers, non-governmental organizations, government
institutions working on food loss reduction (FLR)

Coverage

Global through the Community of Practice on Food Loss
Reduction (CoP) (FAO, 2020a) and at national level with
activities carried out in Burkina Faso, the Democratic
Republic of the Congo and the Republic of Uganda

Duration

December 2013 – September 2020

BACKGROUND

According to the 2019 FAO Report on the State of Food and Agriculture, globally approximately 14 percent of food is lost before it reaches the retail and consumer levels (FAO, 2019a). These losses disproportionately affect developing countries.

Reducing food losses contributes to food security and nutrition (Sustainable Development Goal [SDG] 2 [FAO, 2015]), economic growth, and lowers the impact of food production on the environment. The underlying causes of post-harvest loss (PHL) include limited skills and knowledge of actors in the supply chain, poor practices, weak infrastructure and logistics, lack of appropriate and/or poorly designed tools, equipment and packaging, and absence of/or limited access to markets. Investments are therefore needed to address these issues

The importance of taking action to reduce losses is highlighted in the commitment made by the African Union Commission (African Union, 2014) in Malabo to “end hunger in Africa by 2025” through “halving the current levels of post-harvest losses”; and the SDG target 12.3, which set the objective to “halve per capita global food waste at the retail and consumption levels and reduce food loss along production and supply chains (including post-harvest losses) by 2030.”

The project jointly developed and implemented by the three United Nations (UN) Rome-based agencies (RBA) FAO, IFAD, and WFP from 2013 to 2020, funded by the Swiss Development and Cooperation Agency contributes to the achievement of both of these targets. The project had a global reach through a dynamic web-based Community of Practice (CoP) on the food loss reduction (FLR) platform that facilitates access to knowledge, as well as activities at the national level in three countries: Burkina Faso, the Democratic Republic of the Congo and Uganda. The UN RBA joint project has supported the reduction of food loss in selected grain value chains in each of these countries.



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PROJECT OBJECTIVE, APPROACH AND OUTCOMES

The project implemented a multidimensional approach designed to effectively tackle the interrelated causes of food losses.

Through the following three outcomes, the Project aimed to improve food security and income-generation opportunities by reducing food losses in supported food grains (cereals, pulses, and oilseed) value chains:

- good practice options for reducing post-harvest losses are compiled, disseminated and scaled up through a web-based Community of Practice on food loss reduction (CoP);
- improved handling and storage options within the grains and pulses value chains are benefiting smallholder farming families in three pilot countries (Burkina Faso, the Democratic Republic of the Congo and Uganda);
- policy and regulatory frameworks appropriate for reducing food losses in food supply chains are introduced and implemented at national and regional levels.

The first phase focused on the first and second outcomes related to knowledge generation and capacity-building on food loss reduction.

Whereas the second phase focused on enriching the resources and functions of the CoP and broadening its scope, and the third outcome related to supporting the development of policy, strategy and regulatory frameworks in the target countries.

MAIN RESULTS

▶ A fully functioning multi-language web-based CoP on food loss reduction

The CoP, which was developed and launched at the beginning of the project in 2014, has become a reference point for many PHL practitioners and experts. The platform, which is available in French, English, and Spanish, has 1 200 registered users (FAO, 2020b) from different organizations in the public and the private sectors from 138 countries and has reached an average of 3 600 monthly visits (the end target was 2 000 hits/month); 25 percent of visitors return monthly. The CoP resource on crop coverage has broadened to include other categories of food products including fruit, vegetables, roots and tubers.

At national, continental and global levels, smallholders, traders, supply chain stakeholders, service providers, as well as research organizations and policy-makers have benefitted from capacity-building and access to resources disseminated through the CoP. The platform is used by a diversity of stakeholders active in post-harvest management (PHM) and PHL reduction, of which 26 percent are from universities, 19 percent from UN development agencies, 22 percent are NGOs and 17 percent are from the private sector.

In addition, an e-learning course on the FAO food loss analysis (FLA) methodology¹ has been developed and is available on the CoP website in English (FAO, 2018a) and French (FAO, 2019b) to facilitate training and the capacity-building of national experts, practitioners and students.

The sustainability of the CoP has been ensured through the merger with the FAO-International Food Policy Research Institute (IFPRI) platform on food loss and waste, which will be maintained as part of FAO public goods to allow free access to up-to-date information and knowledge that facilitate and accelerate the implementation of PHL reduction.



• The Technical Platform on the Measurement and Reduction of Food Loss and Waste now serves as a gateway to information on the measurement, reduction, policies, alliances, actions and examples of successful models involving innovative technologies and approaches applied globally to reduce food loss and waste, with links to other related platforms.

▶ Improved capacities at national level

• Fifty participants from Ministries of Agriculture and relevant institutions from 22 African countries were trained through national and regional workshops on the use of the FAO FLA methodology for the purpose of building national capacities in the identification of critical loss points along selected supply chains, underlying causes of losses and feasible solutions, as well as for the analysis of the results and recommendations for the formulation of policies, strategies and regulatory frameworks to inform future investments. With project support, national research teams carried out FLA studies on different grains value chains in each target country. The reports on FLA carried out in Burkina Faso (FAO, PAM et FIDA, 2019a), the Democratic Republic of the Congo (FAO, PAM et FIDA, 2019b) and Uganda² (FAO, WFP and IFAD, 2019) are available on the CoP website.

• Each study identifies and assesses the critical food loss points (CLP) and the major causes of losses along selected grain supply chains; recommends solutions that are economically, technically, socially and environmentally feasible; and develops recommendations for inclusion in government policies and strategies to achieve FLR. CLP are the stages in the food supply chain where losses are highest, have the greatest impact on food security, and broadly affect economic factors. In general, harvesting is the most frequently identified CLP, along with inadequate storage facilities and poor handling practices (FAO, 2019). The results of studies that employ the FAO FLA methodology are essential to guide actors on where and how to significantly reduce losses in specific supply chains, and improve food security and farmers' incomes. Study results also contribute to the Food Loss Index developed by FAO to monitor progress towards the achievement of the SDG 12.3 on food loss reduction. The data and knowledge generated and analysed by the studies in the three countries provided an evidence base to inform interventions and investments, and informed the preparation of policy briefs designed to improve the management of post-harvest systems and reduce losses at scale with key stakeholders in the three countries supported by the project. The main findings and recommendations of the FLA are summarized in briefs developed for Burkina Faso, Democratic Republic of the Congo, and Uganda, which are also accessible on the CoP.

¹ The FAO FLA methodology developed in the framework of the SAVE FOOD global initiative is a case study methodology to analyze along the food chain critical loss points and identify feasible solutions for PHL reduction.

² The FLA reports are on maize, sorghum and cowpea value chains in Burkina Faso; rice and maize in the Democratic Republic of the Congo; and maize, sunflower and beans in Uganda.

Smallholder farmers and supporting actors in the selected value chains in the pilot countries benefitted from awareness-raising activities during the first phase, as well as hands-on training provided through pilots of the recommended solutions in their contexts.

The pilot activities reached 11 producers' organizations, with a total of 4 114 members in Burkina Faso (72 percent of whom are women); four producer associations, with a total membership of 4 000 people (2 650 of whom were women) in the Democratic Republic of the Congo; and one non-governmental organization supporting 39 sunflower and 40 maize producer groups, comprised of a total 1 600 farmers (70 percent of whom were women), and 70 traders and millers in Uganda.

► Policy, strategy and regulatory frameworks conducive to post-harvest loss reduction

In Uganda, the RBA project supported the Ministry of Agriculture, Animal Industry and Fisheries in the development of a national strategy on grains PHL reduction, which was validated by key stakeholders during a national workshop. The following specific objectives have been proposed for the strategy:

- increase general awareness and trigger a change in mind-set towards grains PHL reduction;
- enhance the knowledge and skills of PHL reduction practices for value chain actors;
- augment availability, accessibility, adoption and use of appropriate and improved grain post-harvest and quality enhancing technologies for actors in the value chain; and
- strengthen coordination and collaboration for implementation of efficient and effective strategic actions to reduce PHL.

The project also supported the development of the related action plan, which establishes a set of proposed activities required to achieve the objectives identified in the strategy. In Burkina Faso, the project supported the Permanent Secretariat in charge of the coordination of agricultural policies (*'Secretariat Permanent de la Coordination des Politiques Agricoles'*, SP/CPSA) in mainstreaming interventions to reduce PHM and PHL in the agricultural policy on value chain development (*'Politique sectorielle sur les filières agro-sylvo-pastorales'*) and the national action plans for cereals and cowpea supply chains (*'Plans d'actions des filières céréales et niébé'*).

Today these frameworks include measures to tackle food losses at various levels, including capacity-building and promotion of PHM best practices and equipment, quality and food safety issues, knowledge management related to PHL and

PHM, and measures to address gender issues that impact PHL. In the Democratic Republic of the Congo, the project supported the Ministry of Agriculture in developing standards conducive to food loss reduction for nine food categories as well as pesticide use, in collaboration with CODEX experts in the country.

The promotion of these standards and their adoption by value chain actors will contribute to reducing losses in quantity and quality across the national food sector.

Finally, the project contributed to the development and dissemination of the African Union continental post-harvest loss management strategy (PHLMS) (AUC, 2018), and to the forming of the Intergovernmental Authority on Development's (IGAD) regional strategy on PHL reduction. The project contributed to the validation workshop of the PHLMS and promoted the alignment of the member countries towards its implementation in major events.

► Other outcomes of the project

The RBA Project staff also supported the definition of the Global Food Loss Index (GFLI) to be used by FAO to track progress on FLR against the SDG indicator 12.3.1. This support included contributions to training of national experts on how the FLA methodology is complementary to the GFLI and how the indicative levels of losses are used to define the GFLI.



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CONCLUSIONS AND RECOMMENDATIONS

The UN RBA project has contributed to the progress made towards achieving the AU Malabo Declaration on post-harvest loss reduction and SDG target 12.3 by generating and disseminating knowledge, data and evidence toward enhancing capacities at country level, particularly by conducting analyses of food losses along key value chains and informing PHL reduction strategies. The RBA collaboration has allowed for leveraging the strength of the agencies and the investments supported at country level to mainstream PHL reduction and PHM. The promotion of the

- best practices on PHM and equipment that have proven feasible in different contexts will be further supported and scaled-up through the work of the three implementing agencies.
- The results of the project also contribute to the goal of Zero Hunger (SDG 2), which calls for an end to hunger, the achievement of food security and improved nutrition, and the promotion of sustainable agriculture.
- The expected positive environmental impacts from reducing PHL would also affect, among others, SDG 6 (sustainable water management),

- SDG 13 (climate change), SDG 14 (marine resources), SDG 15 (terrestrial ecosystems, forestry, and biodiversity).
- Governments' commitment to allocate resources (human and financial) to implement the PHL reduction strategies at national, regional and continental levels is crucial to achieving a long-term impact at scale. A favourable environment for stakeholders in the public and the private sector, who invest in facilitating smallholders' access to PHL solutions and promoting PHM best practices, is a prerequisite to the success of future interventions.



TESTIMONIALS

Piloting solutions in **Burkina Faso** to reduce food losses proved constructive for producers' organizations that piloted PHM equipment such as the mechanized sheller. Through focus group discussions, stakeholders reported on their satisfaction in the quality of the results and would use the equipment for future harvests. Women's groups reported in a video (FAO, 2018b) developed to disseminate the results of the pilots that the use of hermetic storage improved the quality of the grains after storage and allowed them to improve their income because they could sell their produce when prices are higher.

Outreach to remote communities in rural areas is difficult, so during the first phase the Food and Agriculture Organization of the United Nations used community radio stations to reach rural areas in the **Democratic Republic of the Congo** to raise awareness on food loss reduction. The radio became a focal point for reaching local authorities and decision-makers to address the populations' needs. A local farmer stated: "Many reached out to the radio to enquire where they could get the equipment piloted to reduce losses, which they heard were effective".

The Permanent Secretary of the Ministry of Agriculture, Animal Industry and Fisheries in the **Republic of Uganda** urged stakeholders to support implementation of appropriate interventions during the validation workshop of the national strategy on reduction of post-harvest losses in grains held in Kampala on 30 May 2019. The Permanent Secretary stated: "Post-harvest losses affect quality and quantity of produce and this eventually affects access to better markets, prices, results in loss of revenue and real income for different value chain actors and reduces the country's overall national income. Interventions and strategies that reduce post-harvest losses are highly required to ensure sustainable quality of the food supply, which automatically translates into enhanced food security and income".



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